

Opportunity Title: The origin of exoplanets with JWST and future far-infrared space telescopes

Opportunity Reference Code: 0350-NPP-NOV26-JPL-Astrophys

Organization National Aeronautics and Space Administration (NASA)

Reference Code 0350-NPP-NOV26-JPL-Astrophys

How to Apply All applications must be submitted in [Zintellect](#)

Please visit the NASA Postdoctoral Program website for application instructions and requirements: [How to Apply | NASA Postdoctoral Program \(orau.org\)](#).

A complete application to the NASA Postdoctoral Program includes:

1. Research proposal
2. Three letters of recommendation
3. Official doctoral transcript documents

Application Deadline 11/1/2026 6:00:59 PM Eastern Time Zone

Description About the [NASA Postdoctoral Program](#)

The [NASA Postdoctoral Program \(NPP\)](#) offers unique research opportunities to highly-talented scientists to engage in ongoing NASA research projects at a NASA Center, NASA Headquarters, or at a NASA-affiliated research institute. These one- to three-year fellowships are competitive and are designed to advance NASA's missions in space science, Earth science, aeronautics, space operations, exploration systems, and astrobiology.

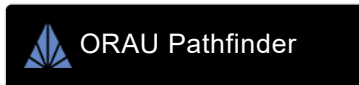
Description:

JWST is returning a treasure trove of spectroscopic data, leading a revolution in our understanding of the structure, dynamics, and chemistry of primary planet-forming regions in protoplanetary disks. Tracing water and organics, both in the solid and gas-phase, the data allow us to measure fundamental properties of the disks for direct comparison with observations of the chemical make-up of exoplanetary atmospheres. We are seeking applicants to work with extensive near- to mid-infrared spectroscopic data from JWST and SPHEREx as part of the JDISCS collaboration. The analyses include retrievals of parameters such as molecular abundances, and interpretation using state-of-the-art radiative transfer and chemical models. The results of the work inform the development of future far-infrared space missions, including the Far-Infrared Probe concept, PRIMA. We particularly encourage applicants with interests in processing and analysis of large data sets, development of scientific software, data pipelines, applied radiative transfer, and/or precise calibration of astrophysical data.

Relevant references:

- JWST data:

<https://ui.adsabs.harvard.edu/abs/2024ApJ...963..158P/abstract>



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- JDISCS: <https://ui.adsabs.harvard.edu/abs/2025AJ....170...67A/abstract>

- Future far-infrared observations:
<https://ui.adsabs.harvard.edu/abs/2025JATIS..11c1635P/abstract>

Field of Science: Astrophysics

Advisors:

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(626) 429-7948

Applications with citizens from Designated Countries will not be accepted at this time, unless they are Legal Permanent Residents of the United States. A complete list of Designated Countries can be found at: <https://www.nasa.gov/oiir/export-control>.

Eligibility is currently open to:

- U.S. Citizens;
- U.S. Lawful Permanent Residents (LPR);
- Foreign Nationals eligible for an Exchange Visitor J-1 visa status; and,
- Applicants for LPR, asylees, or refugees in the U.S. at the time of application with 1) a valid EAD card and 2) I-485 or I-589 forms in pending status

Questions about this opportunity? Please email npp@orau.org

Qualifications PhD in astronomy/astrophysics/astrochemistry/planetary science. Applicants with experience with Python, git/github, ai-leveraged software development, radiative transfer or chemical codes, and/or infrared imaging and spectroscopy are encouraged to apply. Enthusiasm for working as part of a large collaboration/team is important.

Point of Contact [Mikeala](#)

Eligibility Requirements • **Degree:** Doctoral Degree.